42. (Amended) A method for regulating pressure in a print cartridge having a fluid source and a local reservoir, the method comprising the steps of:

sensing the pressure;

issuing a first flow of fluid into the local reservoir from the fluid source when the pressure is less than a first predetermined limit; and

evacuating air from the local reservoir when the pressure is more than a second predetermined limit wherein the pressure range between the first and second predetermined limits define the operating range of the print cartridge.

REMARKS

Claims 37 and 42 have been amended. Claims 35 - 44 remain in the application. These amendments are necessary and not earlier presented in order to place the application in proper form for allowance and to respond to the Examiner's Response to Arguments. Further this amendment simplifies issues for appeal, since these amendments provide clarification as to the intended scope of Applicant's claims. Applicant hereby requests a promptly issued Advisory Action indicating the entry of this amendment. A marked-up version of the changes is found in Appendix A.

In Section 1 of the Office Action, the Examiner rejected claims 37, 42, and 43 under 35 USC 102(b) as being anticipated by Boyd et al.

Claim 37 has been amended to address the Examiner's arguments within Section 4 of the Office Action in response to Applicant's previous amendment. The Applicant has modified claim 37 to more clearly distinguish that activating the vacuum valve means "*opening* a vacuum valve if the pressure is more than a second predetermined limit *to expel air inside the print cartridge*." Support for this amendment is found throughout the specification and in particular on page 8, line 29 to page 9, line 7 and page 10, line 5. Boyd teaches that activating the vacuum valve is "shut" (i.e. closed) (see col. 5, lines 57-67) to prevent further damage and use of the printhead (see col. 5, lines 44-49 and col. 5, lines 8-12) rather than to expel air inside the print cartridge as Applicant is now claiming. In fact, rather

than preventing use of the printhead as Boyd's vacuum valve provides, the Applicant's vacuum valve actively responds to and corrects for pressure changes (by opening and closing) such that back pressure stability at low fluid flows through the printhead can still be maintained (see page 9, lines 4-7). Because Applicant's amendment clarifies how the structure of Applicant's claimed print cartridge differs from Boyd's, Applicant's invention is not anticipated by Boyd. Anticipation requires that each and every element of the claimed invention be disclosed in the prior art (see MPEP 2131). Nor would modifying Boyd render the Applicant's invention obvious. The vacuum valve of Boyd is disposed between the local fluid reservoir 34 and intermediate chamber 51 which is in fluid communication with the printhead 14. Modifying Boyd to have the vacuum valve "close" when "the pressure is not more than a second predetermined limit" which would make the print cartridge of Boyd unsatisfactory for its intended purpose of providing for the printing of ink and also change its principle of operation (see MPEP 2143.01). Accordingly, claim 37, as amended, is believed patentable over the prior art made of record and is also believed to be in prima facie condition for allowance. Removal of the rejection under 35 USC 102(b) and allowance of claim 37 is respectfully requested.

Claim 42 is not anticipated by Boyd. Claim 42 claims "evacuating air from the local reservoir when the pressure is *more* than a second predetermined limit." Conversely, Boyd evacuates "fluid" when the pressure is *less* than a second predetermined limit. This functionality is true for both embodiments of Boyd. However, to better define Applicant's invention, claim 42 has been amended to clarify the meanings of the first and second predetermined limits. Claim 42 now includes the limitation of "wherein the pressure range between the first and second predetermined limits define the operating range of the print cartridge." Support for this limitation is found throughout the specification and in particular Figs. 5B-E and page 10, line 13 to page 11, line 19. Thus, when the pressure within the local reservoir is less than the second limit, the Applicant's claimed invention does not evacuate air (nor fluid) from the local reservoir as does Boyd's vacuum valve in order to operate the print cartridge. When the pressure of the local reservoir is more than the second predetermined limit, the Applicant's vacuum valve evacuates air whereas Boyd's vacuum valve is closed and no air

(nor fluid) can be evacuated. Accordingly, claim 42, as amended, is not anticipated by Boyd. Nor would modifying Boyd to change the opening and closing of the vacuum valve render obvious the Applicant's claim invention for the reasons stated for claim 37 above. Claim 42 is believed patentable over the art made of record and is further believed to be in prima facie condition for allowance and removal of the rejection under 35 USC 102(b) and allowance is respectfully requested.

Claim 43 depends on claim 42 and is believed patentable at least based on the patentability of claim 42. Further, claim 43 contains steps for recharging (refilling) a print cartridge of claim 42. (See Fig. 10 and page 16, lines 8-15). These steps of "injecting fluid" and "withdrawing air" are not disclosed, taught, or suggested by Boyd. Accordingly claim 43 is believed to be in prima facie condition for allowance and such allowance and removal of the rejection under 35 USC 102(b) is respectfully requested.

In Section 2 of the Office Action, the Examiner indicated that claims 35, 36, 38-41 and 44 were allowed. The Applicant wishes to express his appreciation to the Examiner for the allowance of these claims.

Claims 35-44 are believed to be in prima facie condition for allowance and such allowance is respectfully requested.

Respectfully Submitted,

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Appendix A

Marked-Up Version of Changes

37. (Amended) A method for regulating pressure in a print cartridge, comprising the steps of :

sensing the pressure;

activating a first flow valve when the pressure is less than a first predetermined limit;

deactivating the first flow valve when the pressure is not less than a first predetermined limit;

[activating]opening a vacuum valve if the pressure is more than a second predetermined limit to expel air inside the print cartridge; and

[deactivating]closing the vacuum valve if the pressure is not more than a second predetermined limit[;].

42. (Amended) A method for regulating pressure in a print cartridge having a fluid source and a local reservoir, the method comprising the steps of:

sensing the pressure;

issuing a first flow of fluid into the local reservoir from the fluid source when the pressure is less than a first predetermined limit; and

evacuating air from the local reservoir when the pressure is more than a second predetermined limit wherein the pressure range between the first and second predetermined limits define the operating range of the print cartridge.